State and Private Forestry
FY 2013 Western Competitive Resource Allocation
Single-State Project Proposal

Filename			
State:	ID	Keyword:	SECanopy
Administration Information			
Funds Requested:			300000
Match:			300000

1 Applicant Information

State Forestry Agency:	Idaho Department of Lands				
Contact Person:	Mary Fritz				
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2 Project Information

Descriptive Title of Project:	Snake River Valley Canopy Assessment		
Partnering Agencies / Organizations:	Cities of Ammon, Blackfoot, Chubbuck, Idaho Falls, Pocatello, and Shelley (cities), Idaho State University (ISU), Brigham Young University Idaho (BYUI), Idaho Dept of Environmental Quality (IDEQ), Idaho Power, Rocky Mountain Power and Idaho Falls Power (utilities), Three Rivers Resource Conservation and Development Council (RC&D), Idaho Dept. of Lands (IDL), Idaho Community Forest Partners (ICFP), Portneuf Watershed Partnership (PWP)		
Project Duration:	☐ One Year	☐ Two Years	☑ Three Years

3 National Relevance

☐ Conserve Working Forest Landscapes	☐ Protect Forests From Harm	☑ Enhance Public Benefits From Trees and Forests

4 Project Overview

10 Points. 1,000 Characters Including Spaces – Provide a comprehensive but succinct overview of the proposed project that includes basic details of who is doing what, where, and why.

The lower Idaho Snake River Valley (SRV) includes six cities and is home to a quarter million people and a significant percentage of the state's industry, agriculture & business. The Idaho Forest Action Plan (FAP) identifies air and water quality as serious issues in this Priority Landscape Area (PLA) for which strategic increases in community forest canopy can have a positive benefit. This project focuses on these cities (125 sq. miles) and implements the following two priority FAP strategies.

1) Detailed land cover/canopy mapping, completion of a canopy benefits analysis, and development of geospatial tools to prioritize canopy increases focused on addressing the above issues.
2) Strategic, on-the-ground increases in tree canopy based on this analysis as an effective way to mitigate critical issues and maximize public investments.

Partners will work together throughout the project providing data, knowledge, education, strategic tree planting and oversight of project work.

5	Project Budget						
			Leverage[1]				
		Grant Match			Non-Match	Source	TOTAL
		Funds requested	Applicant	Non-federal contributors	Applicant, non-federal, and/or federal	3rd Party Contributor(s)	Total project cost
	Personnel / Labor:	50,000			136,000	Cities/ICFP, Utilities, IDEQ, BYUI	186,000
	Fringe Benefits:	20,000					20,000
	Travel:	15,000					15,000
	Equipment:						0
	Supplies:	10,000			231,000	Cities, Utilities, IDL	241,000
	Contractual:	177,727					177,727
	Construction:						0
	Consolidated[2]:		300,000				300,000
	Other:						0
	Indirect Costs[3]:	27,273					27,273
	TOTAL:	300,000	300,000	0	367,000		967,000

[1] Funds qualifying as "match" must meet the same program requirements as grant funds (e.g., program authorities, non-federal sources). Other "non-match" leveraged funds do not need to meet the same standards (e.g., may include funds for construction, funds from other federal partners). Partnership with other USFS programs outside of State & Private Forestry, as well as other federal and state programs is encouraged. See FAQ online for more information: http://www.wflcweb.org/spf_grants_13/2013_faq_match.pdf

[2] If any part of your match requirement is being covered through consolidation, (i.e., state spending of non-federal funds on activities that meet S&PF program authorities but are not tied to this proposal), place it here.

[3] Indirect costs must be tied to an established rate. Waived indirect costs are an acceptable source of match.

6 Context, Goals, and Objectives

15 Points. 2,000 Characters Including Spaces – What resource issue/s, threats, and/or opportunities does the project address? What is the desired vision or end state? What are the project goals and objectives; what short- and long-term impacts do you hope to achieve?

The greater Pocatello airshed is currently non-attainment for particulates, which compromises public health & economic growth, and increases the potential for regulations that restrict economic development. Smoke from wildland fire, air contaminants from the Wasatch front, and increasing energy demand from urban growth further contribute to unhealthy air quality in this area.

Likewise, contaminants from applications of nitrogen & phosphorous coupled with stormwater runoff have impacted water quality in three aquifers, which supply water for these communities and others more than 100 miles away. An increasing ratio of pervious to impervious surfaces is exacerbating this problem and increasing temperatures beyond IDEQ standards in surface waters.

The vision of this project is to use urban tree canopy to help address these critical issues within our cities. The goal is to utilize strategic, targeted canopy increases to help meet air quality attainment standards, pollutant discharge permit requirements and total maximum daily loads for water quality, lower energy use and, in doing so, improve human health within these six cities.

Project objectives are:

1) Utilize the latest science-based canopy assessment tools to classify land cover and quantify the value—in resource units and dollars—of tree canopy in the SRV for mitigation of carbon, ozone, particulates, water pollutants, stormwater runoff and energy use
2) Establish baseline information for measuring progress over time
3) Develop regional air quality canopy goals across all ownerships through partnerships & assessment results
4) Develop dynamic prioritization tools utilizing assessment data to model where tree planting will have the greatest impact and to predict cost/benefit of investments
5) Strategic tree planting to address identified issues based on assessment results and modeling tools to maximize public investments, and measure the increased ecosystem benefits described above

7 Proposed Activities

15 Points. 2,000 Characters Including Spaces – What work will be completed using grant funds and leveraged resources? Who will do the work over what time frame? How do the activities contribute to achieving stated project goals and objectives?

GF=Grant Funds; LF=Leveraged Funds

Year 1) Complete USDA FS i-Eco assessment/benefits analysis on 400 1/10 acre random, permanent sample plots w/i the 125 sq mi area of interest (AOI). Stipends and mileage for four BYUI/ISU horticulture student interns who will collect data, data collection tools and contracted training and project management (GF=$64,500). Office space & equipment for students and daily supervision by City of Ammon staff, and the time of all project partners in meetings/project oversight (LF=$23,000).

Year 2) Complete a complimentary geospatial Urban Tree Canopy (UTC) assessment of land cover (12 classifications) and tree canopy, identify all potential planting sites, summarize statistics for all data at the AOI, city, land use and individual parcel scales. Development of dynamic GIS visualization, prioritization and cost/benefit analysis tools utilizing data from assessments, utilities & IDEQ to maximize public investments toward addressing critical issues. I-Eco data will help inform analysis. Geospatial contract, Community-Viz software, project management and travel (GF=$149,000). Imagery and data used in analysis, local city GIS staff time modifying data for project and staff time of project partners in meetings/project oversight (LF=$95,000).

Years 2 & 3) Strategic afforestation focused on improving air and water quality and energy conservation based on cost/benefit and prioritization analysis. Cities will purchase and plant 900 trees. (LF=$238,000)

Year 3) Education targeted to community leaders and citizens on the results of this analysis and the benefits of community trees. Staff time developing materials, printing, mailings, and web-site development by all project partners. (LF=$11,000)

Years 1-3) Overall project management: IDL staff time, fringe and travel to oversee and manage project, contracts and partners (GF=$59,227).

Forest Service approved indirect = $27,273.

	Deliverables, Outputs, and Outcomes
8	15 Points. 2,000 Characters Including Spaces – What are the project deliverables, outputs, and outcomes? What metrics or indicators will be used to measure and monitor progress? Deliverables/outputs: • Establishment of 400 permanent 1/10 acre sample plots for current & future i-Eco assessments • Full spectrum of i-Eco analysis reports and tables that will inform future management decisions • UTC assessment for AOI—12 class land cover classification and locations of all potential planting sites summarized by AOI, city, land use and parcel • Baseline data developed for extent, structure, function and value of existing tree canopy w/i the AOI • Dynamic geospatial prioritization tools to analyze cost/benefit of planting locations for maximum benefit toward air quality, water quality and energy conservation • Canopy cover goals established for various land uses, including residential, commercial and open space • Targets established for air quality mitigation from increases in tree canopy toward goals • Strategic planting of 900 public trees w/i AOI based on prioritization tools and assessment data targeted toward maximum impact in air quality improvement • Summary of results distributed via utility bill inserts, ICFP & IDL web sites, and in presentations to city councils, civic groups and partner agencies Outcomes and measures of success: • The functional benefits of tree canopy are used as a cost-effective solution to improve community air and water quality Measure: Incorporation of afforestation/canopy cover goals in community air and water quality plans; increase in private/public investments for urban tree canopy afforestation. • Ability to replicate assessments and measure progress over time Measure: Future assessments completed at 5-10 year intervals • Reduction of atmospheric particulates and other air pollutants, stormwater runoff and water pollutants Measure: Future assessments demonstrate planting and air quality improvement targets are being achieved

	Collaboration
9	15 Points. 2,000 Characters Including Spaces – What partners have contributed to the project? What is the nature of their contributions (project planning, implementation, financial resources, etc.)? How does the project integrate S&PF and/or other programs in a meaningful and complementary way that goes beyond "business as usual"? ICFP, an organization of cities in SE Idaho working together on shared forestry issues, conceived this project to increase benefits of & support for tree canopy in the SRV, and engaged all partners in face-to face meetings to plan this project. Partners will provide the following: • Cities: forestry expertise/student mentoring ($4,000); supervision, office space and equipment for students ($10,000); develop, modify and provide GIS data necessary for assessments, work interactively with GIS contractor throughout the project, establish regional assessment-based canopy goals, provide education to city leaders & citizens based on results & develop actions ($67,000); complete planting projects towards meeting canopy goals ($238,000). • ISU/BYUI: instruction/support/credits for student internships ($5,000). • Utilities: data/information to support energy conservation analysis & co-lead education outreach to customers ($8,000). • IDEQ: air quality data, expertise and help integrate results into air quality plans ($5,000). • IDL: High resolution 4-band aerial imagery and other GIS data ($30,000). • PWP: assist w/water quality issues & public education. • RC&D: Assist w/project administration • All partners will actively serve on an implementation team to review progress, provide information, and ensure deliverables meet their specific needs. Getting non-traditional partners to recognize the functional value of urban forests has always been a challenge, but the critical need to improve air and water quality in the SRV has created an opportunity to use this resource more effectively. No single action will solve these issues. Rather, it will take a combination of many. The ability to quantify these benefits is key. This project integrates U&CF with airshed and water quality managers and energy producers, elevating the role of urban tree canopy as an effective and measurable tool to clean air and water, reduce energy use and create healthier communities.

	Forest Action Plan Integration
10	10 points. 1,250 Characters Including Spaces – How does the project align with stated priority issues, areas, and/or activities in the State Forest Action Plan? The Idaho Forest Action Plan (FAP) resource assessment identified 12 priority landscape areas (PLAs) in Idaho in which to focus work. Within the Eastern Idaho Complex PLA, the resource assessment found substantial areas of high potential benefit to water/air quality from forests and canopy in the greater Pocatello and Idaho Falls areas. This project implements the following priority PLA strategies: 1) The population in communities is growing rapidly and urban areas are expanding. Air quality in and around Pocatello is non-attainment and potential water quality benefits for tree canopy is high in the larger cities and suburbs. An inventory and analysis of canopy benefits will establish baseline data, and model future benefits with increases in canopy percentage to help improve air and water quality, reduce stormwater, and conserve energy in these areas. 2) Canopy goals determined in assessment are used to support increases in canopy to improve air quality and other issues. Focus on increasing canopy over impervious surfaces and near buildings for energy conservation. 3) Educate residents about air quality protection strategies. Partners involved in this project are identified as the key stakeholders in FAP.

	Meaningful Scale
11	10 Points. 1,250 Characters Including Spaces – What is the scale of the project? How will doing work at this scale facilitate achievement of the stated goals, objectives, and outcomes? While the six cities within the 125 sq mi project AOI compose less than 1% of the overall SRV, they are a primary source of pollutants and runoff that impact ground and surface waters, and contain the majority of people in this area impacted by poor air quality. Likewise, the majority of energy within the SRV is used within these cities. As such, targeted increases in tree canopy and an understanding of the benefits these increases will yield will have the greatest impact at improving air quality for the greatest number of people through interception and absorption of pollutants, and water quality by reducing stormwater runoff, lowering pollutants that run into the Snake, Portneuf and Blackfoot Rivers, and increasing infiltration and filtration of ground water. Likewise, strategically located planting around homes and businesses will have the greatest impact in this area at reducing energy use and production—a major factor in levels of particulates and CO2. As population continues to increase, so will impervious surfaces and sources of pollutants. Focusing project work in these areas will yield the greatest impact in improving community and human health in the SRV.

	Sustainability of Outcomes
12	10 Points. 1,250 Characters Including Spaces – What skills and capabilities will result from and extend beyond the life of the project; how? Can the project be replicated in other areas; how? What plans are in place or being developed to replicate or expand the project, to build on skills, capabilities, and lessons learned? Action is required to meet federal air & water quality standards in the SRV. Completing the canopy assessment & analysis, establishing targeted canopy goals & incorporating these into action plans are the first steps in a long-term regional effort to use urban tree canopy to address air & water quality issues. Many of the project partners want additional investments in urban tree canopy & recognize the inherent benefits. However, they lack data & information to monetarily justify these. This assessment provides that justification through a science-based cost/benefit analysis, and provides dynamic geospatial tools for planning and prioritizing future investments. The SRV partners are committed to implementing the developed action plans through increased strategic investments in tree canopy on public lands— & policies, ordinances & incentives for private property. Heat islands such as parking lots & other impervious surfaces will be specifically targeted. IDEQ will continue to measure effectiveness of all actions through air & water quality analysis. The canopy assessment will be repeated at five to ten year intervals to measure progress over time & gauge success at meeting local & regional canopy goals.